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(54) Title: MUTANTS FOR THE PREPARATION OF D-AMINO ACIDS

(57) Abstract: The present invention relates to specific E. coli mutants which can be used for the synthesis of D-amino acids, and to such a process. The mutants are distinguished by deficiencies in particular enzymes which break down D-amino acids.

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# INTERNATIONAL SEARCH REPORT

MAR 2005

International Application No  
PCT/EP 03/11432

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N9/06 C12P1/04 C12N15/09

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MARCEAU M ET AL: "D SERINE DEHYDRATASE FROM ESCHERICHIA-COLI DNA SEQUENCE AND IDENTIFICATION OF CATALYTICALLY INACTIVE GLYCINE TO ASPARTIC ACID VARIANTS" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 263, no. 32, 1988, pages 16926-16933, XP002272606 ISSN: 0021-9258 the whole document --- -/-	1-7

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*G\* document member of the same patent family

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International Application No  
PCT/EP 03/11432

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>WILD J ET AL: "D AMINO-ACID DEHYDROGENASE OF ESCHERICHIA-COLI K-12 POSITIVE SELECTION OF MUTANTS DEFECTIVE IN ENZYME ACTIVITY AND LOCALIZATION OF THE STRUCTURAL GENE"</p> <p>MOLECULAR AND GENERAL GENETICS, vol. 181, no. 3, 1981, pages 373-378, XP009027160 ISSN: 0026-8925 the whole document</p>	1-7
Y	<p>SAREEN DIPTI ET AL: "Chaperone-assisted overexpression of an active D-carbamoylase from Agrobacterium tumefaciens AM 10"</p> <p>PROTEIN EXPRESSION AND PURIFICATION, vol. 23, no. 3, December 2001 (2001-12), pages 374-379, XP002272608 ISSN: 1046-5928 the whole document</p>	3,6,7
Y	<p>HILS M ET AL: "CLONING AND CHARACTERIZATION OF GENES FROM AGROBACTERIUM SP. IP I-671 INVOLVED IN HYDANTOIN DEGRADATION"</p> <p>APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, SPRINGER VERLAG, BERLIN, DE, vol. 57, no. 5/6, 21 March 2001 (2001-03-21), pages 680-688, XP001118705 ISSN: 0175-7598 the whole document</p>	3,6,7
Y	<p>DE 101 14 999 A (DEGUSSA) 10 October 2002 (2002-10-10) the whole document</p>	3,6,7
A	<p>LOBOCKA MALGORZATA ET AL: "Organization and expression of the Escherichia coli K-12 dad operon encoding the smaller subunit of D-amino acid dehydrogenase and the catabolic alanine racemase"</p> <p>JOURNAL OF BACTERIOLOGY, vol. 176, no. 5, 1994, pages 1500-1510, XP009027210 ISSN: 0021-9193 the whole document</p>	

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DATSENKO KIRILL A ET AL: "One-step inactivation of chromosomal genes in Escherichia coli K-12 using PCR products" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 97, no. 12, 6 June 2000 (2000-06-06), pages 6640-6645, XP002210218 ISSN: 0027-8424 ---	
A	ALEXEYEV MIKHAIL F: "The pKNOCK series of broad-host-range mobilizable suicide vectors for gene knockout and targeted DNA insertion into the chromosome of Gram-negative bacteria" BIOTECHNIQUES, vol. 26, no. 5, May 1999 (1999-05), pages 824-828, XP001179978 ISSN: 0736-6205 -----	

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No

PCT/EP 03/11432

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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			WO 02077212 A2	03-10-2002
			EP 1373522 A2	02-01-2004
			US 2003143244 A1	31-07-2003

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